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Pietro Capone, Vito Getuli,
Farzad Pour Rahimian, Nashwan Dawood,
Alessandro Bruttini, Tommaso Sorbi

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Foreword

The *International Conference on Construction Applications of Virtual Reality* (CONVR), as one of the world's leading conferences in the areas of immersive realities and digital transformation in AECO Industry, and the local organizing committee are pleased to present the Proceedings of the 23rd International Conference on Construction Applications of Virtual Reality (CONVR 2023) with the overarching theme "MANAGING THE DIGITAL TRANSFORMATION OF CONSTRUCTION INDUSTRY".

The 23rd CONVR was held on November 13-15, 2023, in Florence, Italy and was proudly hosted by the Department of Architecture of the University of Florence.

CONVR 2023 brought together AECO researchers and practitioners from around the globe to report on and exchange the latest development, ideas, improvements and applications stemming from innovative research activities in the following fields: *Virtual Reality (VR) and Augmented Reality (AR), Reality capture and Photogrammetry, H-BIM for heritage management, Simulation and Automation techniques, Computer Vision and Image Processing, Linked Data and Semantic Web for Knowledge Management, Smart Contracts, Distributed Ledger Technologies and Blockchain, Data Science, Machine Learning, and Data-Driven Approaches, Health & Safety, Green and smart buildings, Occupant-centric building design and operation, Building Information Modeling (BIM), Digital Twins, Internet of Everything, Mobile and wearable computing, Construction site management*. Those topics were articulated in eight different areas: *Methodology, Technology transfer, Technology, State of Art, Theoretical Study, Policy and Standardization, Education and Training, Case Study and Application*.

A total of 123 high-quality contributions were accepted after a rigorous review process from 71 esteemed members of the conference's International Scientific Committee. The accepted papers include a total of 374 authors from 32 countries, from Europe, the Americas, Asia and the Middle East.

More than 150 experts attended the conference contributing to enriching the exciting program which included 6 keynote speeches on the first day and 4 parallel presentation sessions on the following days, together with 5 workshop sessions.

The editors trust that this publication is stimulating and inspiring for academics, scholars and industry experts in the field; hoping that this could be a driving force for innovation, growth and global collaborations among researchers and stakeholders. We believe in the significant role that human interactions, networks, knowledge exchange and transfer play in developing high-value and groundbreaking research. This event provides a platform for networking and intellectual exchange of ideas.

We take this opportunity to express our gratitude to the CONVR2023 Technical Organizing Committee as well as our esteemed reviewers and sponsors. The creation of such a broad and high-quality conference program would not have been possible without their involvement and support. We also thank all the authors who dedicated much of their time and efforts to contribute to CONVR2023. We extend our best wishes to you and look forward to seeing you next year for CONVR2024.

CONVR2023 Local Chairs

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Conference Chair

Dr. Vito Getuli
Chair of the International Scientific Committee

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Within the overarching theme of "Managing the Digital Transformation of Construction Industry" the 23rd International Conference on Construction Applications of Virtual Reality (CONVR 2023) presented 123 high-quality contributions on the topics of: *Virtual and Augmented Reality (VR/AR), Building Information Modeling (BIM), Simulation and Automation, Computer Vision, Data Science, Artificial Intelligence, Linked Data, Semantic Web, Blockchain, Digital Twins, Health & Safety and Construction site management, Green buildings, Occupant-centric design and operation, Internet of Everything.* The editors trust that this publication can stimulate and inspire academics, scholars and industry experts in the field, driving innovation, growth and global collaboration among researchers and stakeholders.

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